Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A serial~~Serial~~ data bus having a data line ~~(12)~~ for the transmission of electrical signals ~~(48, 50)~~ representing bit states and having a plurality of multi-master subscribers ~~(14, 16)~~ between which messages can be exchanged via the data line ~~(12)~~ in an event-driven manner according to the broadcast principle, the serial data bus comprising:

~~characterised in that~~

at least two subscribers ~~(14, 16)~~ each including~~have~~ a transmission/reception head ~~(18)~~ which can be inductively coupled to the data line ~~(12)~~ and via which electrical signals ~~(50)~~ can be tapped contactlessly from the data line and transmitted onto it, and in that an amplifier ~~(36)~~ which receives electrical signals ~~(48)~~ that have been transmitted inductively onto the data line ~~(12)~~ by the at least two subscribers ~~(14, 16)~~, and couples them back into the data line ~~(12)~~ after their amplification, is DC-connected to the data line ~~(12)~~.

2. (currently amended): The serial data~~Data~~ bus according to Claim 1, characterised in that the messages contain priority bits by the reception of which, in the event of simultaneous message transmissions by a plurality of subscribers ~~(14, 16)~~, a subscriber ~~(14, 16)~~ can determine whether it has [[the]] priority to transmit data bits by means of a comparison with priority bits which it itself transmits.

3. (currently amended): The serial data~~Data~~ bus according to Claim 2, characterised in that the[[a]] subscriber ~~(14, 16)~~ does not have [[the]] priority to transmit data bits when it receives a

signal that represents a dominant logical bit state and it approximately simultaneously transmits a signal that represents a recessive logical bit state.

4.   (currently amended): The serial data~~Data~~ bus according to Claim 3, wherein~~one of the preceding claims, characterised in that~~ the signal representing the dominant bit state is a current pulse and the signal representing the recessive bit state is the absence of a current pulse.

5.   (currently amended): The serial data~~Data~~ bus according to Claim 1, wherein~~one of the preceding claims, characterised in that~~ the transmission/reception head ~~(18)~~ comprises:

   ~~a)~~ a transmission coil ~~(30)~~;[[,]]

   ~~b)~~ a reception coil ~~(34)~~;[[,]]

   ~~c)~~ a transmission module ~~(24)~~ by which electrical signals ~~(32)~~, which can be applied to the transmission coil ~~(30)~~, can be generated from digital information;[[,]]

   ~~d)~~ a reception module ~~(22)~~ by which digital information can be generated from electrical signals ~~(50)~~ that can be tapped by the reception coil ~~(34)~~;[[,]] and,

   ~~e)~~ a logic unit ~~(20)~~, connected to the transmission module ~~(24)~~ and the reception module ~~(22)~~, for collating and evaluating messages from digital information received by the reception module ~~(22)~~ and for generating digital information for the transmission module ~~(24)~~.

6.   (currently amended): The serial data~~Data~~ bus according to Claim 4, wherein message priority~~2 or 3 and according to Claim 5, characterised in that the priority of messages~~ can be determined by the logic unit ~~(20)~~.

7.   (currently amended): The serial data~~Data~~ bus according to Claim 1, wherein~~one of the preceding claims, characterised in that~~ after reception of the electrical signals~~a signal~~

(48) from one of the at least two subscribers (14, 16), the amplified signals ~~(50)~~ can be transmitted onto the data line ~~(12)~~ by the amplifier ~~(36)~~ within approximately 25-50%, ~~preferably within 25%,~~ of a[[the]] cycle length which lies at least between two signals transmitted onto the data line ~~(12)~~ by one of the at least two subscribers (16, 18).

8.   (currently amended): The serial data~~Data~~ bus according to Claim 1, wherein~~one of the preceding claims, characterised in that~~ the messages have the format established in the CAN standard.

9.   (currently amended): The serial data~~Data~~ bus according to Claim 1, wherein one of the at least two subscribers~~one of the preceding claims, characterised in that at least one subscriber~~ (14, 16) is arranged so that it can travel along the data line ~~(12)~~.

10.   (currently amended): A motion~~Motion~~ system having a first part and a second part, which is arranged mobile relative to the first part, wherein~~characterised in that~~ subscribers of a data bus according to Claim 9 are arranged statically on the two parts.

11.   (currently amended): The motion~~Motion~~ system according to Claim 10, adapted for design~~characterised in that it is designed~~ as a track-bound transport system having~~with~~ a track ~~(62)~~ and a plurality of vehicles that~~(64, 66) which~~ travel along the track ~~(62)~~, the transport system ~~(60)~~ comprising, for communication between the vehicles ~~(64, 66)~~, a data bus ~~(10)~~ according to Claim 9 whose data line ~~(12)~~ is arranged along the track ~~(62)~~ of the transport system ~~(60)~~ and whose subscribers are the vehicles ~~(64, 66)~~.

12.   (currently amended): The motion~~Motion~~ system according to Claim 11, wherein~~characterised in that~~ at least one vehicle comprises a vehicle control ~~(78), which~~ is connected to the transmission/reception head ~~(18)~~.

13.   (currently amended): The motion~~Motion~~ system according to Claim 11, wherein~~or 12, characterised in that~~ the amplifier ~~(36)~~ is connected to a control unit ~~(44; 441, 442, 443)~~ for controlling the vehicles ~~(64, 66)~~ along the data bus ~~(10)~~.

14.   (currently amended): The motion~~Motion~~ system according to Claim 13, wherein~~characterised in that~~ the amplifier ~~(36; 361, 362, 363)~~ is connected to the control unit ~~(44; 441, 442, 443)~~ via a CAN bus ~~(821, 822, 823)~~.

15.   (currently amended): The motion~~Motion~~ system according to Claim 13 being ~~or 14,~~ ~~characterised in that it is~~ subdivided into a plurality of segments ~~(601, 602, 603)~~ which respectively comprise a data bus ~~(10)~~ having a control unit ~~(441, 442, 443)~~, and in that the control unit ~~(441, 442, 443)~~ for the individual segments is connected to a superordinate central control ~~(94)~~.

16.   (currently amended): The motion~~Motion~~ system according to Claim 15, wherein~~characterised in that~~ the track ~~(62)~~ for the vehicles ~~(64, 66)~~ extends over a plurality of segments ~~(601, 602, 603)~~ so that vehicles ~~(64, 66)~~ can travel over segment boundaries.

17.   (currently amended): The motion~~Motion~~ system according to Claim 11 being ~~one of Claims 11 to 16, characterised in that it is~~ designed as an overhead conveyor system ~~(60)~~ for transporting objects~~, in particular motor-vehicle bodywork (60)~~.

18.   (currently amended): A serial~~Serial~~ method for the event-driven transmission of messages between a plurality of multi-master subscribers ~~(14, 16)~~ according to the broadcast principle via a data bus ~~(10)~~, the method comprising the steps of~~characterised by the following steps~~:

        a) contactless transmission of an electrical signal ~~(52)~~ by a subscriber ~~(14)~~ onto a data line ~~(12)~~ of the data bus ~~(10)~~ via a transmission/reception head ~~(18)~~, coupled inductively to the data line ~~(12)~~, of the subscriber ~~(14)~~;

        b) reception of the electrical signal ~~(48)~~ attenuated by the inductive transmission by an amplifier ~~(36)~~ DC-connected to the data line ~~(12)~~;

c) amplification of the received signal (48) in the amplifier (36);

d) coupling of the amplified signal (50) onto the data line (12); and,

e) reception of the amplified signal (50) transmitted onto the data line (12) by a transmission/reception head (18), coupled inductively to the data line (12), of another subscriber (16).

19.   (currently amended): The methodMethod according to Claim 18, suchcharacterised in that when a subscriber (14, 16) simultaneously transmits a message and receives a message, it determines whether it has the priority to transmit data bits by means of a comparison of received priority bits and self-transmitted priority bits.

20.   (currently amended): The methodMethod according to Claim 21, suchcharacterised in that a subscriber does not have the priority to transmit data bits when it receives a signal that represents a dominant logical bit state and it approximately simultaneously transmits a signal that represents a recessive logical bit state.

21.   (currently amended): The methodMethod according to Claim 20, suchcharacterised in that the signal representing the dominant bit state is a current pulse and the signal representing the recessive bit state is the absence of a current pulse.

22.   (currently amended): The methodMethod according to Claim 18, suchone of Claims 18 to 21, characterised in that the messages have the format established in the CAN standard.